

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in Viburnum opulus

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2-CARBOXYARABINITOL	Leaf	--	26	-0.8084354957974759	Moore, B. D., Isidoro, E., Seemann, J. R. 1993. Distribution of 2-Carboxyarabinitol Among Plants. <i>Phytochemistry</i> 34 3: 703-707. Dept. Biochem. Univ. Nevada Reno 89557, USA.
16	ACETIC-ACID	Root Bark	--	--		
16	ACETIC-ACID	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
32	AESCULETIN	Bark	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
10	ALPHA-AMYRIN	Root Bark	--	--		
10	ALPHA-AMYRIN	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	ALUMINUM	Bark	702	702	2.1099902097575876	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
15	ARBUTIN	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
15	ARBUTIN	Leaf	200	200	-0.7732537920967253	
112	ASCORBIC-ACID	Fruit	126100	126100	7.556029777700852	
7	ASTRAGALIN	Flower	900	900		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BALDRIANIC-ACID	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	BETA-AMYRIN	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
9	BETA-AMYRIN	Root Bark	--	--		
53	BETA-CAROTENE	Fruit	6400	6400	12.220284060630327	
47	BETA-SITOSTEROL	Root Bark	--	--		
47	BETA-SITOSTEROL	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
102	CAFFEIC-ACID	Branches	--	--		
28	CALCIUM	Bark	23540	23540	0.46526131569268436	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
3	CAPRIC-ACID	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	CAPROIC-ACID	Root Bark	--	--		
5	CAPRYLIC-ACID	Root Bark	--	--		
0	CEROTIC-ACID	Root Bark	--	--		
77	CHLOROGENIC-ACID	Branches	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	CHLOROGENIC-ACID	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
24	CHROMIUM	Bark	21	21	1.416729279304621	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
18	CINNAMIC-ACID	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
23	CITRIC-ACID	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	COBALT	Bark	115	115	3.105040721922236	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
7	CYANIDIN	Leaf	--	--		
0	D,L-CATECHIN	Root Bark	900	900		
0	D,L-CATECHIN	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	D-GALACTOSE	Leaf	--	--		
0	D-GALACTOSE	Fruit	--	--		
0	D-GALACTOURONIC-ACID	Fruit	--	--		
0	D-GALACTOURONIC-ACID	Leaf	--	--		
1	D-GLUCOSE	Fruit	--	--		
1	D-GLUCOSE	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	D-XYLOSE	Leaf	--	--		
0	D-XYLOSE	Fruit	--	--		
0	EO	Bark	1000	3000	-0.7030724101422462	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
40	EPICATECHIN	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
30	ESCULETIN	Bark	--	--		
13	FORMIC-ACID	Root Bark	--	--		
7	GLUCOSE	Root Bark	--	--		
0	HYDROQIONONE	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
6	IRON	Bark	880	880	3.0560740291801767	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
75	KAEMPFEROL	Leaf	--	--		
0	L-ARABINOSE	Fruit	--	--		
0	L-ARABINOSE	Leaf	--	--		
0	L-RHAMNOSE	Leaf	--	--		
0	L-RHAMNOSE	Fruit	--	--		
27	LINOLEIC-ACID	Root Bark	--	--		
27	LINOLEIC-ACID	Bark	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
27	LINOLEIC-ACID	Fruit	--	--		
27	LINOLEIC-ACID	Seed	--	--		
0	LINOLENIC-ACID	Leaf	--	--		
65	MAGNESIUM	Bark	3110	3110	0.9274461605911677	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
15	MALIC-ACID	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
14	MANGANESE	Bark	49	49	-0.34875097941765754	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	METHYL-ARBUTIN	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	MYRICYL-ALCOHOL	Root Bark	--	--		
0	MYRICYL-ALCOHOL	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	NEO-CHLOROGENIC-ACID	Branches	--	--		
0	OLEANOLIC ACID GLUCOSIDE	Plant	--	--		
18	OLEIC-ACID	Root Bark	--	--		
18	OLEIC-ACID	Seed	--	--		
18	OLEIC-ACID	Fruit	--	--		
0	OPULUS IRIDOID I	Leaf	3000	7300		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	OPULUS IRIDOID II	Leaf	700	700		
0	OPULUS IRIDOID III	Leaf	800	800		
0	OPULUS IRIDOID IV	Leaf	200	200		
0	PAEONISIDE	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	PAEONOSIDE	Flower	1200	1200		
13	PALMITIC-ACID	Bark	--	--		
13	PALMITIC-ACID	Root Bark	--	--		
24	PECTIN	Bark	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
24	PECTIN	Fruit	50000	50000	-0.03661673030520101	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	PHOSPHORUS	Bark	650	650	-0.46815956974940875	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
14	POTASSIUM	Bark	7360	7360	0.2937629021909361	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	PROTEIN	Bark	86000	86000	0.2524208249192275	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
176	QUERCETIN	Leaf	--	--		

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0	QUERCETIN-GLYCOSIDES	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
44	SCOPOLETIN	Root Bark	7.5	7.5	-1	
44	SCOPOLETIN	Bark	--	--		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
0	SCOPOLINE	Plant	--	--		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
60	SELENIUM	Bark	--	23	2.6167352397960517	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	SILICON	Bark	99	99	1.9960039711313557	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	SODIUM	Bark	184	184	-0.2785736779761555	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
14	SUCROSE	Fruit	16600	16600	-0.6291173949832924	
14	SUCROSE	Root Bark	--	--		
35	TANNIN	Fruit	30000	30000	-0.6222515111796854	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	TIN	Bark	18	18	0.668849450963278	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	URSOLIC ACID GLUCOSIDE	Plant	--	--		

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89	URSOLIC-ACID	Fruit	--	--		List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	VALERIANIC-ACID	Plant	--	--		Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705.
9	VALERIC-ACID	Root Bark	--	--		
0	VIBURNITAL	Leaf	--	--		
0	WATER	Bark	782000	782000	0.4581878715921525	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
77	ZINC	Bark	17	17	0.40123557571247687	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.